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ABSTRACT

The effects of behavioral consultation (defined by J. Bergan as the application of behavioral theory and research in consultation services) techniques were applied to the teacher of an aggressive, noncompliant, autistic male child (aged 6 years). The consultant utilized Bergan's four stages of problem solving: problem identification, problem analysis, plan implementation, and problem evaluation, in order to guide the teacher in modifying the S's behavior. During the problem identification, problem analysis, and problem evaluation interviews, the consultant was guided by Bergan's four message classification units: source (consultant or consultee), content, process, and control. In the plan implementation interview the objectives (as delineated by Bergan) were skill development, implementation monitoring, and revision. Techniques, such as time out and verbal and edible reinforcement, were chosen to modify the S's unacceptable behavior. Results of the training techniques indicated that there was a significant decrease in aggression, and a gradual decrease in noncompliance. (Author/PHR)

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# THE EFFECTS OF BEHAVIORAL CONSULTATION TECHNIQUES ON AGGRESSIVE AND NON-COMPLIANT BEHAVIORS OF AN AUTISTIC CHILD

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The Effects of Behavioral Consultation Techniques on Aggressive and Non-Compliant Behaviors of an Autistic Child

Behavioral consultation has recently been utilized as an effective and resourceful application of behavioral principles to psychoeducational problem solving. Bergan (1977), has defined behavioral consultation as "the application of behavioral theory and research in consultation services".

Bergan further delineates the concept of behavioral consultation by indicating its various characteristics. It is an indirect service provided by an individual with expertise in psychological principles. This expertise enables the consultant to aide the consultee in identifying, analyzing and implementing procedures with the goal of modifying maladaptive behavior.

Consultative problem solving has several features which set it apart from other types of problem solving. The consultee is able to fully participate in the exchange so that problem solving doesn't consist merely of the consultant giving the answers, instead she is able to provide first hand observations and judgments about the child. The environment of the client becomes an important factor because the problem is defined as being external to the child, as opposed to initially placing the responsibility of changing the behavior on the child. The plan is judged effective if the consultee's goals for the client have been reached. The consultant should be in the classroom, playground, cafeteria, etc., observing and relating with the consultee.

Behavioral consultations has been applied to a variety of children in numerous situations with differing target behaviors. For example, Bergan (1977), cites a case in which goals toward increasing social compe-

tency were established for a second grade girl. Through the use of the interview, the consultee and consultant discussed the antecedents and consequences of the client's target behavior and decided to focus first on obtaining data on her ability to follow directions. This skill was chosen as a step toward improving her adjustment in the classroom.

Another case cited by Bergan (1977), illustrates consultation interviews in which the goal was to increase the number of times a day that a preschooler talked to his teacher and others within the school environment. The first plan, which did not achieve the goals of the consultee, was to use the teacher's attention and positive reinforcement in order to increase the client's verbalizations. In the second plan, which did succeed in increasing the client's verbalizations, the consultee made use of cueing, reinforcement and extinction.

As noted above, Bergan's consultation techniques are applicable to children with mild behavioral and learning problems, but there seems to be no research on the application of his approach with severely handicapped children. The purpose of this study was to apply Bergan's consultation techniques to the teacher of a six year old aggressive, noncompliant, autistic child.

## METHODS

### Subject

S was a six year, nine month old male student. Tests administered to S were: the Stanford-Bient Intelligence Scale, M=100, SD-16; Peabody Picture Vocabulary Test, M=100, SD=15; and the Leiter International Performance Scale, M=100, SD=16. S achieved an age equivalent of 2-2½ years on the Stanford-Binet, and an approximate test age on the Leiter of 3 years, 8 months.

The parents report that until 2½ years old, S was a "normal" baby. He achi ved all the appropriate milestones within the normal range. At 2½, S's mother had another child. According to the mother, it was at this point that S began to lose much of his acquired language, became hyperactive, easily frustrated, rejected physical contact, and became very prone to temper tantrums. S often demonstrated jealousy of his sibling which included physical attacks.

S's most pronounced type of inappropriate behavior was his aggression. The frequency rate for this aggressive behavior was approximately 15 times a day, which was of a 1-2 second duration, and a variable intensity. S became aggressive when: avoiding a task; he was corrected; he was frustrated; and when he was requested to comply with a request.

Experimenters

Consultant

The senior author of this study took the role of consultant as an assignment for a graduate course in Clinic and Liaison Teaching at Rhode Island College. This was the senior author's first experience in the use of behavioral consultation as outlined by Bergan. However, before teaching autistic children, the senior author earned her M.Ed. in counselling and school psychology from Boston College where she consulted with teachers as part of her practicum. After obtaining her M.Ed., a year was spent as an adjustment counsellor in an elementary school where psychodynamic consultation took place regularly with the teachers of the referred students.

Consultee

The teacher who acted as consultee had two years of college training in education. She had no formal training in behavioral consultation, special education, or behavior modification techniques.

Setting

The setting was a private school in the Northeast for severely emotionally disturbed students. The school based its program on a behavioral, developmental and ecological orientation. The staff consisted of 19 teachers, 8 consultants, and 4 director-supervisors at the time of this study. There were 22 students who were assigned to one of the 3 units; senior, intermediate and freshmen.

The intermediate unit, in which S was placed, had students who ranged in age from 6 through 20. There were 10 students in this unit who all had some language abilities. Program goals for students in this unit included academic and preworkshop activities, social recreation, and independent living skills.

S's setting was not limited to one particular classroom. When S was working 1-1 with a teacher, he was usually in a small room with no distracting stimuli.

General Procedures

In order to guide the consultee in modifying S's maladaptive behavior, Bergan's four stages of problem solving were utilized: problem identification; problem analysis; plan implementation and problem evaluation (Bergan, 1977). In problem identification, the problems to be solved are described and delineated. Classroom observations or procedures are also described. Problem analysis involves specifying the antecedents and consequences of the problem and outlining a plan that would meet the goals of the consultee. Once the problem has been analyzed, one moves on to plan implementation where the consultant sees that the plan as outlined in the analysis is carried through effectively. The consultant makes use of skill training if the consultee

lacks the necessary skills for effective plan implementation. The last stage, problem evaluation, takes place so that plan effectiveness and goal attainment can be ascertained.

During the problem identification, problem analysis and problem evaluation interviews, the consultant makes use of Bergan's four message classification units. These four units are: source; content; process and control. The two sources of messages in behavioral consultation are the consultant and the consultee.

Bergan (1977), describes seven areas of content on which the consultee and consultant will focus during the course of each of the three interviews. These seven areas include: background-environment; behavior setting; behavior; individual characteristics; observation; and other. An example of a verbalization in the background-environment subcategory would be: "What happened when you used extinction?" In order to determine the antecedent, consequent and sequential conditions of the client's aggressive behavior, the consultant might ask: "What is usually happening right before, during, and after Mary is aggressive?" When the consultant asks precise questions about a client's behavior, the verbalization would be in the behavior subcategory. An example of this type of verbalization by the consultant is: "Tell me about Jean's problem behavior in your room." In making a statement or question about the unique conditions or states of the child, the individual characteristics subcategory is used. In order to find out more about the client, the consultant might ask: "How old is Nancy?" Verbalizations concerning information based on data from recording and observations are in the observation subcategory. The following is an example of a verbalization in the observation subcategory: "It would be easiest for you to use your golf counter to count the number of aggressive incidents." Any verbalization dealing with the plan to be

used in problem solving would be in the plan subcategory, such as: "Tell me what you think about the use of time out as a consequence for Jim's aggressive behavior?" Those topics that don't fall into the other six subcategories, but do occur during an interview, would be categorized as other. For example, the consultant might say to the consultee in the course of an interview: "That kind of activity must really tire you out!"

The message process category as described by Bergan (1977), includes the following five subcategories: specification; evaluation; inference; summarization; and evaluation. A specification verbalization contains information that describes or defines. An example of this type of verbalization would be: "What does Joe do when he's frustrated?" Verbalizations that provide emotional or attitudinal information are in the evaluation subcategory. An example of this subcategory would be: "I really think you did a great job in recording the antecedents of the on-task behavior." When verbalizations of judgments are made, they fall into the subcategory of inferences. An inferential statement by a consultant concerning the data would be: "When you take the data, that type of information should come out." When the speaker reviews what has been said during the interview, such as: "You've said that Eve's off task behavior occurs primarily during math," it is classified as a summarization statement. When a verbalization is made in order to reach a consensus between the consultee and consultant, it is in the validation subcategory. For example, the consultant might say: "So we've agreed to use timeout only when Bob is aggressive."

Message control indicates whether or not a verbalization exerts control over the listener. Bergan (1977), divides message control into

two subcategories: elicitor and emitter. An elicitor is a verbalization that regulates the utterances of the consultee. For example, the consultant might say: "Give me some examples of how David is on the playground." An emitter on the other hand, doesn't require any particular answer, but it does serve the purpose of providing content and process information. An example of an emitter would be: "It would be helpful if you used this chart to record the number of correct answers."

For a more detailed analysis of verbal interaction techniques in consultation, the reader is referred to Bergan, 1977; Bergan, 1970; Bergan and Caldwell, 1967; Bergan, Curry, Currin, Haberman and Nicholson, 1973; Bergan and Dunn, 1976; Bergan and Tombari, 1975; and Bergan and Tombari, 1976.

Problem Identification Interview

Bergan (1977), specifies the steps which must be followed in the problem identification interview. First, objectives to be reached through the consultation must be established. In order to determine one's objectives, the consultee must give a behavioral description of the problem behavior, describe the antecedent conditions of the behavior, and estimate the frequency of the behavior of concern. The following excerpts from the problem identification interview for this study demonstrate the first step:

Consultant: "So, S is aggressive approximately 10-20 times a day, and it consists of hitting, kicking, pushing and pulling hair" (Behavior-Summarization-Emitter).

Consultant: "So the behavior occurs only when you're dealing with S, not with anyone else" (Behavior-Summarization-Elicitor)?

The second step in the problem identification interview is to obtain data on the behavior of concern. The consultee and consultant need

to decide what type of measure to use, how often recording is to be done, and where data is to be recorded. The following excerpts indicate how the consultant in this study reached the measurement objectives:

Consultant: "We need a new baseline on S's aggressive behavior with you consequating the behavior just as you have been." (Observation-Inference-Elicitor).

Consultant: "Then you'll take your daily counts and transfer them onto graphs - one for the aggression and one for the non-compliance." (Observation-Summarization-Emitter).

The last step in the problem identification interview is to meet the procedural objectives by arranging a date with the consultee for the next interview, and to set a time so that the consultant can check on the recording procedures. The following excerpts indicate how the consultant in this study reached these procedural objectives:

Consultant: "Well, in the middle of the week I'll meet with you during your prep time to see how its going" (Observation-Specification-Emitter).

Consultant: "O.K., at that time we'll set up a time for another meeting to go over the data in detail and see where we'll go from there" (Observation-Specification-Emitter).

Problem Analysis Interview

Objectives for the problem analysis interview include: reaching a concensus as to the validity of the problem; identifying antecedent, consequent and sequential conditions of problem behavior, establishing strategies and tactics in order to implement a plan; and then setting a date for the next interview (Bergan, 1977).

In order to validate the existence of the problem behavior, the baseline data has to be checked, and a discrepancy between the consultee's goals and the current behavior must be established. The following excerpts indi-

cate how the problem was validated for this study:

Consultant: "So from looking at the data it seems that S is aggressive on the average of 19 times per day" (Behavior-Summarization-Emitter).

Consultant: "How much aggression per day by S would be acceptable to you" (Behavior-Specification-Elicitor)?

Consultee: "I think maybe around 2 times a day ..."

By reviewing the data on the antecedent, consequent and sequential conditions of the problem behavior, the analysis objective can be reached. The following excerpt indicates how the consultant summarized what the consultee found from her data:

Consultant: "Generally it seems to be when he doesn't want to stop playing, when he runs away, and when he doesn't want to repeat a sentence" (Behavior Setting-Summarization-Emitter).

The objective of designing the plan is demonstrated in this study by the following excerpts from the problem analysis interview:

Consultant: "One way to avoid the immediate chain of aggression and the attention S receives for it is to put him in time out immediately after the first aggression" (Plan-Specification-Emitter).

Consultee: "Should I say anything to him as I'm putting him in time out? Maybe just a brief, "no----" and then that would be it."

Consultant: "How long do you think would be appropriate for time out" (Plan-Specification-Elicitor).

Consultant: "Do you think you could set aside a period of time when you go through 10 trials or so of requests and reinforce S for every compliance" (Plan-Positive Validation-Elicitor)?

The last objective to be met in the problem analysis interview is to set a time for the next interview and for a check on the progress of the plan which is demonstrated in the following excerpts:

Consultant: "Then tomorrow morning we can set up a time when you can tell me how the plan is going" (Plan-Specification-Emitter).

Plan Implementation

Bergan (1977), delineates the categories for objectives for plan implementation into the following: skill development; implementation monitoring; and revision.

The consultee in this study did have the skills needed to count, record and graph the data which was seen in her work during the baseline period. However, provisions were made for skill training for the compliance sessions and for the time out procedure. The plan was role-played, with a reversal of roles included. Skill training for the compliance sessions was carried out in the same way. Once the consultee was comfortable with the procedures, and we had dealt with any possible obstacles that could have occurred, the plan was implemented.

In order to monitor the implementation, the consultant checked with the consultee intermittently throughout the implementation to see if any questions needed to be answered or to make suggestions. The data was reviewed for completeness and accuracy. Informal meetings were held between the consultant and consultee to ensure that no problems or obstacles were occurring.

The consultant met the objective of determining the need for plan revision as described by Bergan (1977), by checking with the consultee to find out how she felt the plan was progressing and, by checking the results of the data, and through informal observations.

Problem-Evaluation Interview

Goal attainment, consultation-guidance, plann-effectiveness, post-implementation planning, and follow-up communication are the five areas of objectives for the problem evaluation interview that Bergan (1977), has identified.

In order to determine whether goal attainment had been reached in this study, the data was examined, and the behavioral goal was restated as can be seen from the following excerpts from the problem evaluation interview for this study:

Consultant: "I see that on the first week S averaged 22 incidents of aggression per day, the second week he averaged 15 incidents per day, and then the third week he averaged only 8 per day" (Behavior-Summarization-Emitter).

Consultant: "But in our first meeting you said that your goal for S was no more than two incidents of aggression per day" (Behavior-Summarization-Emitter).

Consultant: "So would you agree that we really haven't reached our goal for aggressive behavior" (Behavior-Positive Validation-Elicitor)?

Consultee: "Well, no, we haven't, but I really feel that it's only a matter of a few weeks until we do reach it. I would really hate to alter the plan now..."

The second objective for problem evaluation interviews, that of guiding the consultee through the next phase of the interview, is demonstrated by the following excerpts:

Consultant: "So you feel that both time out and the timer should continue to be used" (Plan-Specification-Elicitor).

Plan effectiveness is evaluated by examining possible sources and effects of internal and external validity which can be seen by the following excerpts:

Consultant: "With the kind of design we used we really can't be entirely certain whether our plan for S was what changed his behavior" (Plan-Inference-Emitter).

Consultant: "So you do agree that we can't say definitely whether it was our plan alone that changed S's behavior" (Plan-Positive Validation-Elicitor).

Consultant: "What about the validity in assuming that the results of this plan could be generalized to the other students here" (Plan-Specification-Elicitor)?

Post-implementation planning is described by Bergan (1977), as the establishment of post-implementation strategies, plan tactics, recording procedures, and procedures for handling problems. The following excerpts illustrate how this objective was met in the problem-evaluation interview for this study:

Consultant: "Let's make some plans to make sure the compliance continues to increase and the noncompliance continues to decrease" (Plan-specification-Elicitor).

Consultee: "Well, I feel I should continue with the plan as it is. The built in gradual generalization in the compliance training is something that I'm aiming for."

Consultant: "Perhaps when we meet after spring vacation to discuss the aggression intervention, you could show me your data and we could think about revising our plan" (Plan-Positive Validation-Elicitor)?

The last objective of procedure, entails either scheduling the next interview, or ending the consultation process. The following excerpt demonstrates how this objective was carried through:

Consultant: "When we get back from vacation, I'll call you and we'll set up a time to get together" (Plan-Positive Validation-Elicitor).

Aggression Intervention

During the problem identification interview, the consultee described how the client was able to get considerable attention from the other students and from others when he was aggressive. In addition, the aggression

was very aversive to the consultee, and it had become physically impossible for her to continue to ignore the behavior. Therefore, the procedure of timeout was implemented so that S could no longer receive any positive reinforcement for his aggression.

For each aggression, the consultee said immediately to S in a stern, controlled voice, "no (hitting, kicking, etc.) S", and then took him into the timeout room, closed the door, and set the timer outside the door for two minutes. When the bell rang, the consultee opened the door, and in a non-punitive, non-reinforcing attitude, returned S to his original task with no reference to the aggression. This sequence was followed for every aggressive behavior.

Compliance Training

When S's aggressive behavior was discussed in the problem analysis interview, it was found that the aggression occurred in a chain, with non-compliance as the first link to the aggression. S seemed to need time each day when he could learn to associate compliance with teacher praise and reinforcement. Therefore, for ten minutes each day, the consultee conducted compliance training (see Table 3). The procedure for this training was to go through each of the 10 trials in the following way:

1) make a request, i.e., "pick up the pencil"

2) If there is no response or refusal to comply, wait 10 seconds and make the request again.

3) If no response occurs after a second request (after an interval of 10 seconds), go on to second request in the trial, i.e., "sit in the yellow chair." Follow through all 10 trials in this manner. If no response occurs after all 10 trials, discontinue the session for the day.

4) If S does respond to request, reinforce him with both social praise, i.e., "That was great to see you do what the teacher asked.", and at the same time reinforce with a small edible reinforcer.

The results for each trial were then recorded on a graph. Phase I of the training focused on simple tasks and involved a familiar situation and person. Phase II included more complex tasks but still involved familiar situations and persons. Phase III involved complex tasks and unfamiliar situations and persons. Criteria for passing a trial was 3 compliances in a row.

Continuous Reinforcement Intervention

Aside from the specific compliance training, the consultee was reinforced for every compliance with some form of social praise.

Setting Timer Between Work and Play Sessions Intervention

When the program record sheets were analyzed, it was found that a considerable source of difficulty for S was in stopping one activity and beginning another. The consultee would make a request, S wouldn't comply, the request was repeated, and then S was aggressive. S seemed to need a cueing device to being and end an activity, therefore the use of a timer was included as part of the plan. A timer was set as each lesson began, for fifteen minutes. The consultee said to S, "S, I am setting the timer for fifteen minutes of work, when the bell rings, it will be time to play." The timer was placed where S could hear and see it. When the timer rang, the consultee said, "S, the bell rang. Now it's time to play." The timer was set again and the consultee said to S, "S, I'm setting the timer for 5 minutes of play, when the bell rings, it will be time to put the toys away so we can do our work." When the bell rang the consultee said to S, "S, the bell rang, now it's time to put your toys away because it's time to work." This procedure was carried out for each work and play session throughout S's day. While the timer was ticking, toward the end of the session, S was given a warning that the bell was about to ring.

# RESULTS

## Baseline Results

The target behaviors for S were aggression, noncompliance, and compliance. Aggression consisted of hitting, kicking, pushing and pulling hair of the consultee. Noncompliance occurred each time S did not respond or refused to comply with the consultee's request. Compliance was counted every time S complied with a request made by the consultee. The consultee used a frequency count for 5 hours per day to observe the three behaviors. For every aggressive incident, the consultee used program record sheets (see Table 1) to record time, place and antecedent conditions of the behavior. As can be seen in Table 2, the mean number of aggressive incidents was 18.8, 27.8 for compliant responses, and 11.4 for noncompliant responses. The program record sheets show that most of the aggression occurred in groups, rather than isolated incidents. The location of the aggression was primarily in the classroom, the hallway and the 1-1 room, which indicates that the behavior was limited to S's immediate environment. The antecedents all seemed to center around teacher requests, ranging from asking S to sit down, to using manual guidance to lead S back to class after he ran into the hallway. The consequences were a verbal reprimand and then a 30 second interval of withdrawal of the consultee's attention.

## Intervention Results

The consultee's goals for S, which were stated during the problem analysis interview, were to reduce the number of aggressive incidents per day to two, to reduce the number of noncompliant responses, and to increase the number of compliances.

As can be seen in Table 2, the mean number of aggressions decreased

during baseline from 18.4 to 14.7 during intervention. The results for compliance interventions can also be observed in Table 2. During baseline, the mean for noncompliance was 8.6. The intervention period yielded a decrease to 11.4. Accompanying the gradual decrease in noncompliance, was a slight increase in S's compliance. Table 2 indicates that during baseline, S was compliant an average of 27.8 times per day, compared to an average of 23.7 compliances per day during the intervention period. The number of compliances is lower during intervention than during baseline, but this is not considered a significant decrease because the number of compliances required of S from day to day varied, depending on the number of requests made. What is significant however, is that the number of noncompliant responses during intervention decreased in comparison with the baseline period. The results for the compliance training procedure can be seen in Figure 1. S began the training by complying to half of the requests. The data shows a gradual decrease in the number of trials in which S was noncompliant. By the last day of the training, the data indicates that S complied to nine out of the ten requests.

## DISCUSSION

In summary, the results of the data indicate that there was a significant decrease in aggression, and a gradual decrease in noncompliance. Compliance showed a slight decrease, but as noted in the results section, this decrease was based on a varying number of requests of S per day. The interventions used to decrease the aggression were the use of timeout combined with a curing procedure with a timer. In order to decrease noncompliance and increase compliance, S was reinforced for complying throughout the day, and a compliance training program was utilized.

The AB design using a single group, and multiple interventions occurring simultaneously was selected. Although the data suggests positive results, it cannot be stated that the interventions were solely responsible for changing S's behavior (Kazdin, 1973). During the problem evaluation interview, the consultee did state that her communications with S's parents during the intervention were limited, so the environment at home could have been simultaneously affecting S without the consultee's knowledge.

Because the four interventions were all put into effect at the same time, there was multiple intervention interference. Also, the behaviors under discussion are inter-related, so there was even further interference. For practical purposes, the consultee and consultant worked out a plan that would modify S's behavior as quickly as possible. The intensity of S's aggression necessitated interventions that would deal with the behavior immediately. A gradual implementation of interventions one at a time, would have made the plan much more conducive to research; however, that was not a goal for the consultee. Figure 2 does illustrate S's continued progress toward meeting the consultee's goals.

In addition, generalizations from this study cannot be freely applied to other students because this design was not controlled for selection intervention interaction. It is not known whether the reinforcements and consequences that were used with S would have the same effect on other autistic children. For S, timeout was very aversive, and teacher praise was very reinforcing. However, for many autistic children, timeout and teacher attention would have no effect at all because of their tendency to be socially withdrawn.

Reactive effects were also not controlled for in this design which affects the external validity of this plan (Kazdin, 1973). From observations of S however, it did not seem that he was aware of the consultee's expectations for behavior change.

In conclusion, although one cannot absolutely rule out the fact that some other coincidental, independent variable might have affected S, some generalizations can be made. Because improvement in S did occur at the same time as the intervention, it seems reasonable to assume that there are autistic, and similarly handicapped children who might benefit from the types of interventions used in this study. Behavioral consultation as described by Bergan (1977), allows for much emphasis on individuality when designing a plan. It aides the consultee in analyzing the specific conditions affecting problem behavior occurs. If one implemented the plan utilized in this study, but found that goals were not accomplished, Bergan describes how to go back to earlier interviews and assess where the breakdown may have occurred. For example, if the consultant found by examination of the data that aggression was not decreasing, a return to the problem analysis interview would be indicated. One possiblity of attaining the desired decrease in aggression would be to change the amount of timeout or the type of reinforcement. Perhaps the problem is not in the plan itself, but rather the skill of the consultee. In the latter case, the consultant needs to provide further skill training for the consultee.

Bergan's behavioral consultation techniques have been suggested as a valuable guide which enables one teacher to help another in identifying, analyzing, implementing and evaluating problem behaviors of special needs children.

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TABLE 1:PROGRAM RECORD SHEET SAMPLE

STUDENT'S NAME_____ DATE_____

| BEHAVIOR | TIME-PLACE | ANTECEDENTS | CONSEQUENCES | COMMENTS |
|---|---|---|---|---|
| pushing | 9:05-hall | asked to repeat sentence, "please help me" | verbal reprimand timeout | |
| kicking | 10:30-class | asked to put toys away | verbal reprimand timeout | |
| hitting | 1:05-hall | leading him back into class after he ran out | verbal reprimand timeout | |

TABLE 2: MEAN NUMBER OF AGGRESSIVE, NONCOMPLIANT AND COMPLIANT BEHAVIORS FOR SIX YEAR OLD AUTISTIC CHIID

| TYPE OF RESPONSE | BASELINE | INTERVENTION | PERCENT OF CHANGE |
|---|---|---|---|
| AGGRESSION | 18.8 | 14.7 | -22% |
| NONCOMPLIANCE | 11.4 | 8.6 | -25% |
| COMPLIANCE | 27.8 | 23.4 | -16% |

TABLE 3: COMPLIANCE TRAINING SAMPLE

PHASE I- Simple tasks, familiar situation, familiar person

1) pick up pencil
   pick up raisin

2) sit in yellow chair
   sit in green chair

3) say,"Hi Arthur"
   say,"zip my coat"

4) clap your hands
   tap your head

5) open the door
   close the door

6) put toys in box
   put shapes in box

7) say,"help me please"
   say,"where is the car?"

8) come here(3 ft. dist.)
   come here(hall to desk)

9) wash your hands
   get a towel

10) make something
    with blocks
    make a square

| | 1st week | | 2nd week | | 3rd week | |
|---|---|---|---|---|---|---|
| | C | NC | C | NC | C | NC |
| Monday | 5 | 5 | 6 | 4 | 7 | 3 |
| Tuesday | 4 | 6 | 5 | 5 | 6 | 4 |
| Wednesday | 4 | 6 | 5 | 5 | 6 | 4 |
| Thursday | 5 | 5 | 4 | 6 | 7 | 3 |
| Friday | 6 | 4 | 3 | 7 | 5 | 5 |

TABLE 4: BREAKDOWN OF INTERVENTION COMPARING MEANS OF AGGRESSIVE, NONCOMPLIANT AND COMPLIANT BEHAVIORS OF SIX YEAR OLD AUTISTIC CHILD

| TYPE OF RESPONSE | BASELINE | FIRST HALF OF INTERVENTION | SECOND HALF |
|---|---|---|---|
| AGGRESSION | 18.8 | 20.4 | 9.0 |
| NONCOMPLIANCE | 11.4 | 12.1 | 5.1 |
| COMPLIANCE | 27.8 | 21.0 | 26.6 |

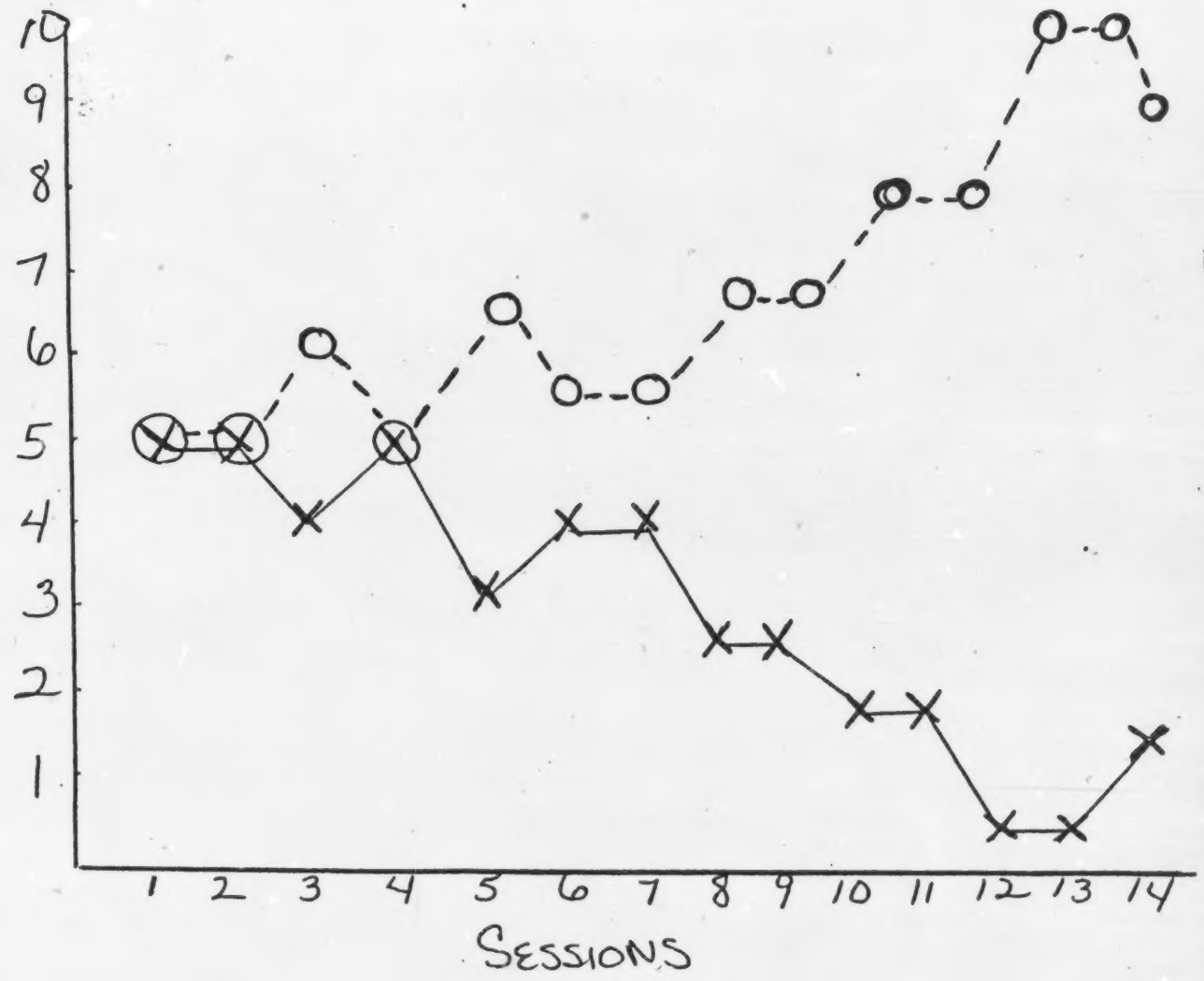


FIG. 1- COMPLIANCE TRAINING RESULTS- PHASE I

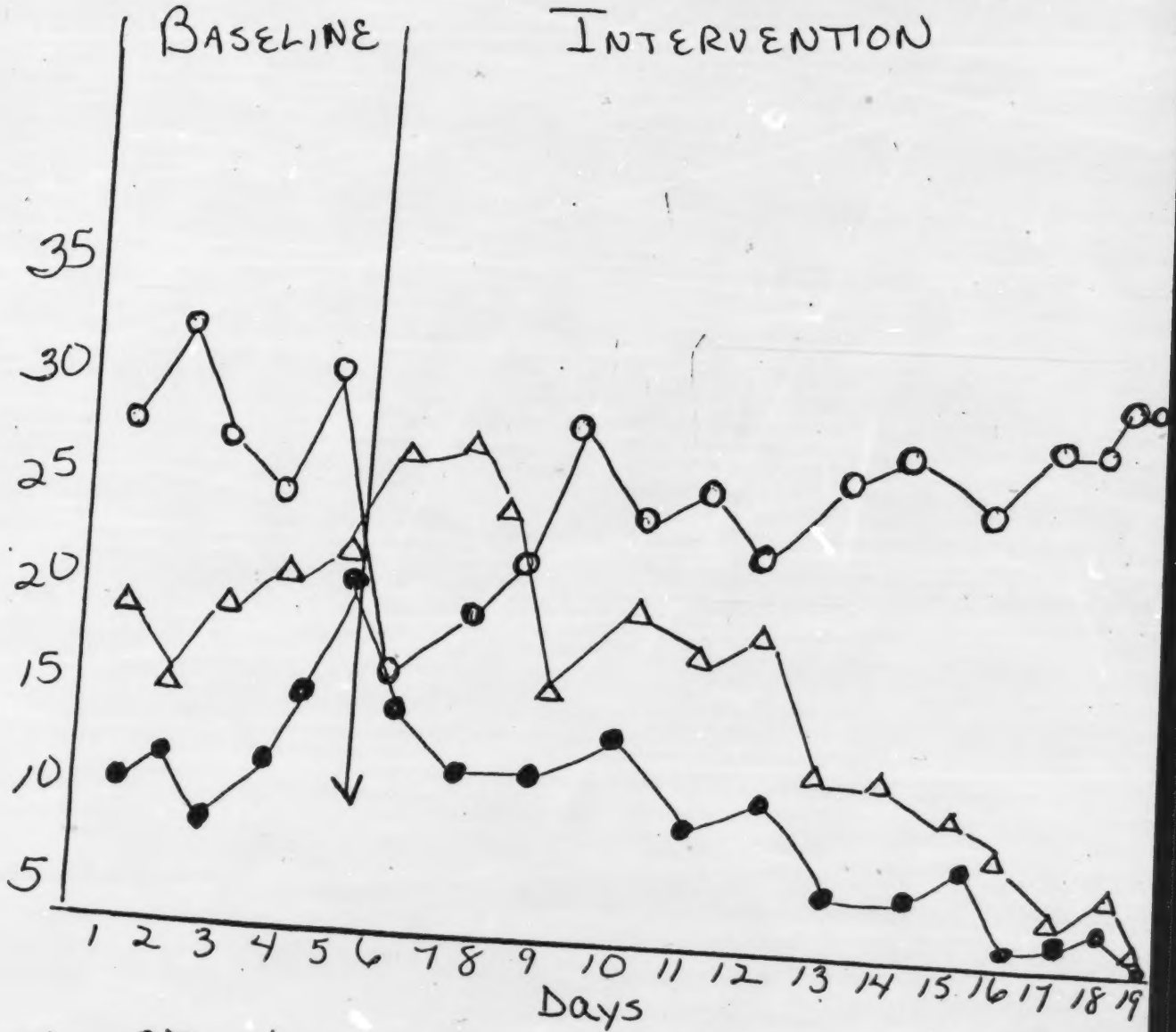


FIG 2 - MODIFICATION OF AGGRESSIVE, NONCOMPLIANT, AND COMPLIANT BEHAVIORS

## STAGES IN CONSULTATIVE PROBLEM SOLVING